

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-18 (canceled).

19. (new): A lubricant applying apparatus for applying lubricant to a rolling bearing, comprising:

a table disposing said rolling bearing thereon;

a lubricant discharge nozzle having at least one discharge port, said lubricant discharge nozzle discharging a prescribed amount of said lubricant in a state that said lubricant discharging port is located above a rolling element of the said rolling bearing; and

an application control unit, relatively approaching said lubricant discharge nozzle to said rolling element, and providing a discharge command to said lubricant discharge nozzle.

20. (new): A lubricant applying apparatus according to claim 19, further comprising:

a sensor detecting a position of said rolling element during the rotation of said rolling bearing,

wherein said table is a rotating table rotating said rolling bearing about a center axis thereof as a rotation axis; and

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said application control unit receives a signal representing that said sensor detects the position of said rolling element, and relatively approaches said lubricant discharge nozzle to said rolling element after stopping the rotation of said rotating table.

21. (new): A lubricant applying apparatus according to claim 19, wherein said discharge port of said lubricant discharge nozzle has been treated with an oil repellent treatment.

22. (new): A lubricant applying apparatus according to claim 19, wherein said lubricant discharge nozzle includes said discharge ports, the number of which is equal to that of said rolling elements of said rolling bearing.

23. (new): A lubricant applying apparatus according to claim 19, further comprising:
a lubricant pressurized sending pump sending said lubricant under pressure via a filter filtering said lubricant.

24. (new): A lubricant applying apparatus according to claim 19,
wherein said application control unit has a controller and a rolling element detection signal is inputted in said controller.

25. (new): A lubricant applying apparatus according to claim 24,

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wherein said controller further has a first amplifier, an electromagnetic valve and a second amplifier;

a rotation control signal, an electromagnetic valve control signal, and a vertical slide control signal for a prescribed liquid volume discharge device are outputted from said controller; and

said rotation control signal is inputted in said first amplifier, said electromagnetic valve control signal is inputted in said electromagnetic valve, and a vertical slide control signal for a prescribed liquid volume discharge device is inputted in said second amplifier.

26. (new): A lubricant applying apparatus according to claim 25, further comprising:

a rotational driving motor for rotationally driving said rotating table;

a plunger driving pneumatic cylinder for driving a pump; and

a vertical driving motor for sliding said prescribed liquid volume discharge device

vertically,

wherein a first driving voltage signal outputted from said first amplifier is inputted in said rotational driving motor;

air from said electromagnetic valve is supplied to said plunger driving pneumatic cylinder; and

a second driving voltage signal outputted from said second amplifier is inputted in the vertical driving motor.

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27. (new): A lubricant applying apparatus for applying lubricant to a rolling bearing, comprising:

a table disposing said rolling bearing thereon, and having an engagement portion for engaging a convex or concave portion of a retainer of said rolling bearing;

a lubricant discharge nozzle having at least one discharge port, said lubricant discharge nozzle discharging a prescribed amount of said lubricant in a state that said lubricant discharge port is located above a rolling element of said rolling bearing; and

an application control unit, relatively approaching said lubricant discharge nozzle to said rolling element, and providing a discharge command to said lubricant discharge nozzle.

28. (new): A lubricant applying apparatus according to claim 27,

wherein the table has a convex engagement portion for engaging a concave engagement portion formed in a lower face of the retainer.

29. (new): A lubricant applying apparatus according to claim 27, further comprising:

a sensor detecting a position of said rolling element during the rotation of said rolling bearing,

wherein said table is a rotating table rotating said rolling bearing about a center axis thereof as a rotation axis; and

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said application control unit receives a signal representing that said sensor detects the position of said rolling element, and relatively approaches said lubricant discharge nozzle to said rolling element after stopping the rotation of said rotating table.

30. (new): A lubricant applying apparatus according to claim 27, wherein said discharge port of said lubricant discharge nozzle has been treated with an oil repellent treatment.

31. (new): A lubricant applying apparatus according to claim 27, wherein said lubricant discharge nozzle includes said discharge ports, the number of which is equal to that of said rolling elements of said rolling bearing.

32. (new): A lubricant applying apparatus according to claim 27, further comprising:
a lubricant pressurized sending pump sending said lubricant under pressure via a filter filtering said lubricant.

33. (new): A lubricant applying apparatus according to claim 29,
wherein said application control unit has a controller and a rolling element detection signal is inputted in said controller.

34. (new): A lubricant applying apparatus according to claim 33,

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wherein said controller further has a first amplifier, and electromagnetic valve and a second amplifier;

a rotation control signal, an electromagnetic valve control signal, and a vertical slide control signal for a prescribed liquid volume discharge device are outputted from said controller; and

said rotation control signal is inputted in said first amplifier, said electromagnetic valve control signal is inputted in said electromagnetic valve, and a vertical slide control signal for a prescribed liquid volume discharge device is inputted in said second amplifier.

35. (new): A lubricant applying apparatus according to claim 34, further comprising:

a rotational driving motor for rotationally driving said rotating table;

a plunger driving pneumatic cylinder for driving a pump; and

a vertical driving motor for sliding said prescribed liquid volume discharge device vertically,

wherein a first driving voltage signal outputted from said first amplifier is inputted in said rotational driving motor;

air from said electromagnetic valve is supplied to said plunger driving pneumatic cylinder; and

a second driving voltage signal outputted from said second amplifier is inputted in the vertical driving motor.